

## ABSTRACT

Anemia is a lower concentration of hemoglobin in the body compared to the normal value. There are many factors that can cause anemia in adolescent girls, such as infections, the lack of knowledge, low iron intake, the presence of inhibitor substances, and the monthly menstruation cycle. The objective of this study was to analyze the correlation between nutrient knowledge, consumption patterns (iron sources, iron inhibitors, and iron enhancers), and nutritional status, with the occurrence of anemia in female students .

This research was an analytic observational study that performed a cross-sectional design on 50 female students from grade X to XI at Islamic Boarding School Al-Mizan Muhammadiyah Lamongan. The sample selection was done using proportional random sampling method. The data of consumption patterns were recorded by Food Frequency questionnaire and Food Recall 2x24 hours. Then, the data of nutritional knowledge were collected using a questionnaire that provided anemia and nutrition-related questions. the data of nutritional status was obtained by recording the height and body weight and digital hemoglobin meter to measure hemoglobin level. The data were analyzed by a Spearman correlation test.

There was a correlation between nutritional knowledge ( $p=0.016$ ), consumption patterns of iron sources ( $p=0.036$ ), and iron inhibitor ( $p=0.012$ ) with the occurrence of anemia. there was no correlation between consumption patterns of iron enhancers ( $p=0.339$ ) and nutritional status ( $p=0.489$ ) with the occurrence of anemia.

The conclusions is nutritional knowledge, consumption patterns of iron sources, and iron inhibitors, can affect the hemoglobin level in the body which contributes to the occurrence of anemia among female students. Thereby, in the future, it is expected that the female students will consume more iron source foods, limit the iron inhibitors consumption, and also be more aware of nutritional information about what foods that contain iron in high level, especially heme iron, to prevent anemia.

Keywords: Anemia, consumption patterns, female students, nutritional knowledge, nutritional status

**ABSTRAK**

Anemia merupakan konsentrasi hemoglobin dalam tubuh yang lebih rendah dari nilai normal. Banyak faktor yang dapat menyebabkan anemia pada remaja putri, diantaranya yaitu adanya penyakit infeksi, pengetahuan yang rendah, asupan zat besi yang kurang dan adanya zat yang dapat menghambat penyerapan zat besi dalam makanan serta adanya siklus menstruasi setiap bulannya. Tujuan dari penelitian ini yaitu untuk menganalisis hubungan pengetahuan gizi, pola konsumsi (sumber zat besi, *inhibitor* zat besi dan *enhancer* zat besi), serta status gizi dengan kejadian anemia pada remaja putri.

Penelitian ini merupakan penelitian observasional analitik dengan menggunakan desain *cross sectional* pada 50 santriwati kelas X dan XI di Pondok Pesantren Al-Mizan Muhammadiyah Lamongan. Sampel dipilih menggunakan metode *proportional random sampling*. Pengambilan data pola konsumsi menggunakan *Food Frequency questionnaire* dan *Food Recall 2x24 jam*. Data pengetahuan gizi menggunakan kuesioner berisi pertanyaan mengenai anemia dan pengetahuan gizi. Data status gizi didapatkan melalui penimbangan berat badan dan pengukuran tinggi badan, serta alat *hemoglobinmeter digital* untuk mengetahui kadar hemoglobin. Data dianalisis menggunakan uji korelasi *spearman*.

Hasil penelitian menunjukkan terdapat hubungan antara pengetahuan gizi ( $p=0,016$ ), pola konsumsi sumber zat besi ( $p=0,036$ ) dan *inhibitor* zat besi ( $p=0,012$ ) dengan kejadian anemia. Tidak terdapat hubungan antara pola konsumsi *enhancer* zat besi ( $p=0,339$ ) dan status gizi ( $p=0,482$ ) dengan kejadian anemia.

Berdasarkan hasil dari penelitian ini dapat disimpulkan bahwa responden dengan pengetahuan gizi dan pola konsumsi sumber zat besi yang baik serta membatasi konsumsi sumber *inhibitor* zat besi dapat menurunkan risiko terjadinya anemia. Responden diharapkan meningkatkan asupan sumber zat besi, membatasi konsumsi *inhibitor* zat besi serta meningkatkan pengetahuan gizi mengenai apa saja bahan makanan yang merupakan sumber zat besi dan *inhibitor* zat besi untuk mencegah anemia.

Kata Kunci: Anemia, pola konsumsi, santriwati, pengetahuan gizi, status gizi,